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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,041	06/04/2002	Chun-Chih Yang	VIAP0040USA	9772
27765	7590	09/16/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			SHARON, AYAL I	
			ART UNIT	PAPER NUMBER
			2123	
DATE MAILED: 09/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/064,041

Applicant(s)

YANG, CHUN-CHIH

Examiner

Ayal I. Sharon

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2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/4/2002</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Introduction***

1. Claims 1-10 of U.S. Application 10/064,041 filed on 6/4/2002 are presented for examination. The application claims foreign priority to Taiwanese application 090117751, filed on 7/20/2001.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed 3/14/2003 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the cited reference, Taiwanese Patent No. 341418 has not been provided. The IDS has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

***Claim Rejections - 35 USC § 101***

3. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims, as written, are directed to a computer algorithm which is not implemented in the technological arts (e.g. computer-implemented, or embodied on a computer readable medium). The claimed invention is therefore not concrete or tangible. See MPEP §2106 (A), and *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The prior art used for these rejections is as follows:
6. Brodie et al, U.S. Patent 5,408,557. (Henceforth referred to as "**Brodie**").
7. The claim rejections are hereby summarized for Applicant's convenience. The detailed rejections follow.
8. **Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Brodie.**
9. In regards to Claim 1, Brodie teaches the following limitations:

*1. A computer algorithm for converting a text file into a circuit design database and vice versa so that a user can update the text tile and the*

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*corresponding circuit design database; the computer algorithm comprising:*

*compiling a hardware description written in the text file into the corresponding circuit design database;*

(See Brodie, especially: See Fig.2, Item 26, and col.4, lines 18-21)

*converting comment text written in the text file into a code stream according to a predetermined conversion rule;*

(See Brodie, especially: See Fig.2, Items 23-24, and col.4, lines 14-17 and 26-29)

In both Brodie and in the instant application, the original file is separated into two files containing comments and source code respectively.

*updating the circuit design database and compiling the updated circuit design database into the corresponding hardware description; and*

(See Brodie, especially: Fig. 2, Item 26, and col.4, lines 18-21)

*converting the code stream into the comment text, and inserting the comment text into the hardware description corresponding to the updated circuit design database so as to generate an updated text file.*

(See Brodie, especially: See Fig.2, Items 23-24 and 28, and col.4, lines 14-29)

In both Brodie and in the instant application, the updated comments and source files are merged into a unified file.

10. In regards to Claim 2, Brodie teaches the following limitations:

*2. The computer algorithm of claim 1 wherein a format of the comment text is different from a format of the code stream after being converted according to the predetermined conversion rule.*

(See Brodie, especially: Fig.1, Items 19 and 12, and col.1, lines 17-34)

In Brodie, the format used in the document processor 19 differs from the format in the Unified Design File 12. The two-way arrow in the figure indicates that there must be a change in format when exchanging data between the two. See also col.4, lines 24-27.

11. In regards to Claim 3, Brodie teaches the following limitations:

*3. The computer algorithm of claim 1 wherein the text file conforms to a specification of a Verilog hardware description language.*

(See Brodie, especially: col.3, lines 43-49)

Brodie teaches the use of the VHDL hardware description language, which is equivalent to the Verilog hardware description language.

12. In regards to Claim 4, Brodie teaches the following limitations:

*4. The computer algorithm of claim 3 further comprising applying an electronic design aided tool (EDA) to compile the hardware description into the corresponding circuit design database, and updating the circuit design database through the electronic design aided tool.*

(See Brodie, especially: Fig.1, Item 13 and col.3, lines 35-49)

13. In regards to Claim 5, Brodie teaches the following limitations:

*5. The computer algorithm of claim 1 wherein the code stream comprises space codes, tab codes, or enter codes.*

(See Brodie, especially: col.4, lines 43-46)

Brodie teaches that: "During extraction 24 the statements comprising source code 20 are arranged in the correct order to produce the desired function as indicated by the master codes."

Examiner interprets that this inherently requires including space and enter codes, otherwise the extracted source code does not correspond to the original source code.

14. In regards to Claim 7, Brodie teaches the following limitations:

*7. The computer algorithm of claim 6 wherein the header comprises space codes, tab codes, or enter codes.*

(See Brodie, especially: col.4, lines 43-46)

Brodie teaches that: "During extraction 24 the statements comprising source code 20 are arranged in the correct order to produce the desired function as indicated by the master codes."

Examiner interprets that this inherently requires including space and enter codes, otherwise the extracted source code does not correspond to the original source code.

15. In regards to Claim 8, Brodie teaches the following limitations:

*8. The computer algorithm of claim 1 wherein the code stream is stored in a data container.*

(See Brodie, especially: Fig.1, Item 12 and col.3, lines 17-37)

16. In regards to Claim 9, Brodie teaches the following limitations:

*9. The computer algorithm of claim 8 wherein the data container is stored in a memo.*

(See Brodie, especially: Fig.1, Item 12 and col.3, lines 59-62 and col.4, lines 6-8)

Examiner finds that Brodie's "unified design file" corresponds to the claimed "memo."

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. The prior art used for these rejections is as follows:

19. Brodie et al, U.S. Patent 5,408,557. (Henceforth referred to as "**Brodie**").

20. The claim rejections are hereby summarized for Applicant's convenience. The detailed rejections follow.

**21. Claims 6 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Brodie in view of Official Notice.**

22. In regards to Claim 6, Brodie teaches the following limitations:

*6. The computer algorithm of claim 1 further comprising:  
generating a header attached before the code stream for indicating a  
starting point of the code stream.*

Brodie teaches (see col.4, lines 43-46) that:

“During extraction 24 the statements comprising source code 20 are arranged in the correct order to produce the desired function as indicated by the master codes.”

Examiner interprets that this inherently requires including space and enter codes, otherwise the extracted source code does not correspond to the original source code.

However, Brodie does not expressly teach “generating a header attached before the code stream for indicating a starting point of the code stream.”

Official Notice is given that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brodie by placing “beginning of file” and “end of file” characters at the beginning and the end of the files, because this practice was old and well known at the time.

23. In regards to Claim 10, Brodie teaches the following limitations:

*10. The computer algorithm of claim 8 wherein the data container is stored  
in a hard disk drive.*

Brodie teaches that the Unified Design File is stored in a database (the cylinder shown in Fig.1, Item 12 cylinder is a well known symbol for a database),



however, Brodie does not expressly teach that this database is in a hard disk drive.

Official Notice is given that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brodie by storing the Unified Design File database in a hard disk drive, because this practice was old and well known at the time.

### ***Conclusion***

24. The following prior art, made of record and not relied upon, is considered pertinent to applicant's disclosure.
25. U.S. PG-PUB 2002/0059348 teaches an automatic documentation generation tool. It teaches extracting comments from source files (See abstract). Its filing date post-dates the foreign priority filing date of the instant application, thereby invalidating it as prior art.
26. U.S. Patents 4,860,203 and 5,101,491 and 5,247,693 and 5,265,254 are prior art patents cited by the Brodie reference.
27. U.S. Patents 6,467,072 and 6,405,356 are patents issued to the inventor.
28. U.S. Patent 5,937,190 teaches the use of probe directive comments that are extracted from the source code at col.22, lines 49-67, and at col.23, lines 10-30.
29. U.S. Patent 5,987,239 teaches the use of macros as comment code in col.5, lines 32-60.

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**Correspondence Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749.

Any response to this office action should be faxed to (571) 273- 8300, or mailed to:


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or hand carried to:

USPTO  
Customer Service Window  
Randolph Building  
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Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon  
Art Unit 2123  
September 13, 2005

  
Paul L. Rodriguez 9/14/05  
Primary Examiner  
Art Unit 2125